

GENES ENCODING NOVEL PROTEINS WITH PESTICIDAL ACTIVITY AGAINST
COLEOPTERANS

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ABSTRACT OF THE DISCLOSURE

The invention provides nucleic acids, and variants and fragments thereof,
obtained from strains of *Bacillus thuringiensis* encoding δ -endotoxins having pesticidal
activity against pests of the order Coleoptera. The invention further provides
mutagenized nucleic acids that have been modified to encode endotoxins having
10 improved pesticidal activity and/or altered pest specificity. Particular embodiments of
the invention provide isolated nucleic acids encoding pesticidal proteins, pesticidal
compositions, expression cassettes, and transformed microorganisms and plants
comprising a nucleic acid of the invention. These compositions find use in methods for
controlling pests, especially plant pests.